



UNDEREMPLOYED WORKERS

A U S T R A L I A

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For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Labour Market Section on Canberra (02) 6252 7206.

NOTES

ABOUT THIS PUBLICATION

This publication presents information about underemployed workers. The number of underemployed workers is an important component of underutilised labour resources in the economy, along with the number of unemployed and some persons with marginal attachment to the labour force. A range of information is presented on underemployed workers including the number of hours usually worked, number of preferred hours, steps taken to find work with more hours, and difficulties finding work with more hours.

The statistics in this publication were compiled from the Underemployed Workers Survey, conducted throughout Australia in September 2004 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS).

Data from the survey relate to all employed persons aged 15 years and over. Persons who worked less than 35 hours in the week prior to the survey (i.e. the reference week) and who would have preferred to work more hours, were asked about whether they were looking for work with more hours, whether they were available to start work with more hours and their experience in looking for work with more hours. Other information sought included the duration of the current period of insufficient work and the number of extra hours preferred.

ROUNDING

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ASCED	Australian Standard Classification of Education
CAI	computer assisted interviewing
ILO	International Labour Organisation
LFS	Labour Force Survey
n.f.d.	not further defined
RSE	relative standard error
SACC	Standard Australian Classification of Countries
SE	standard error

Dennis Trewin
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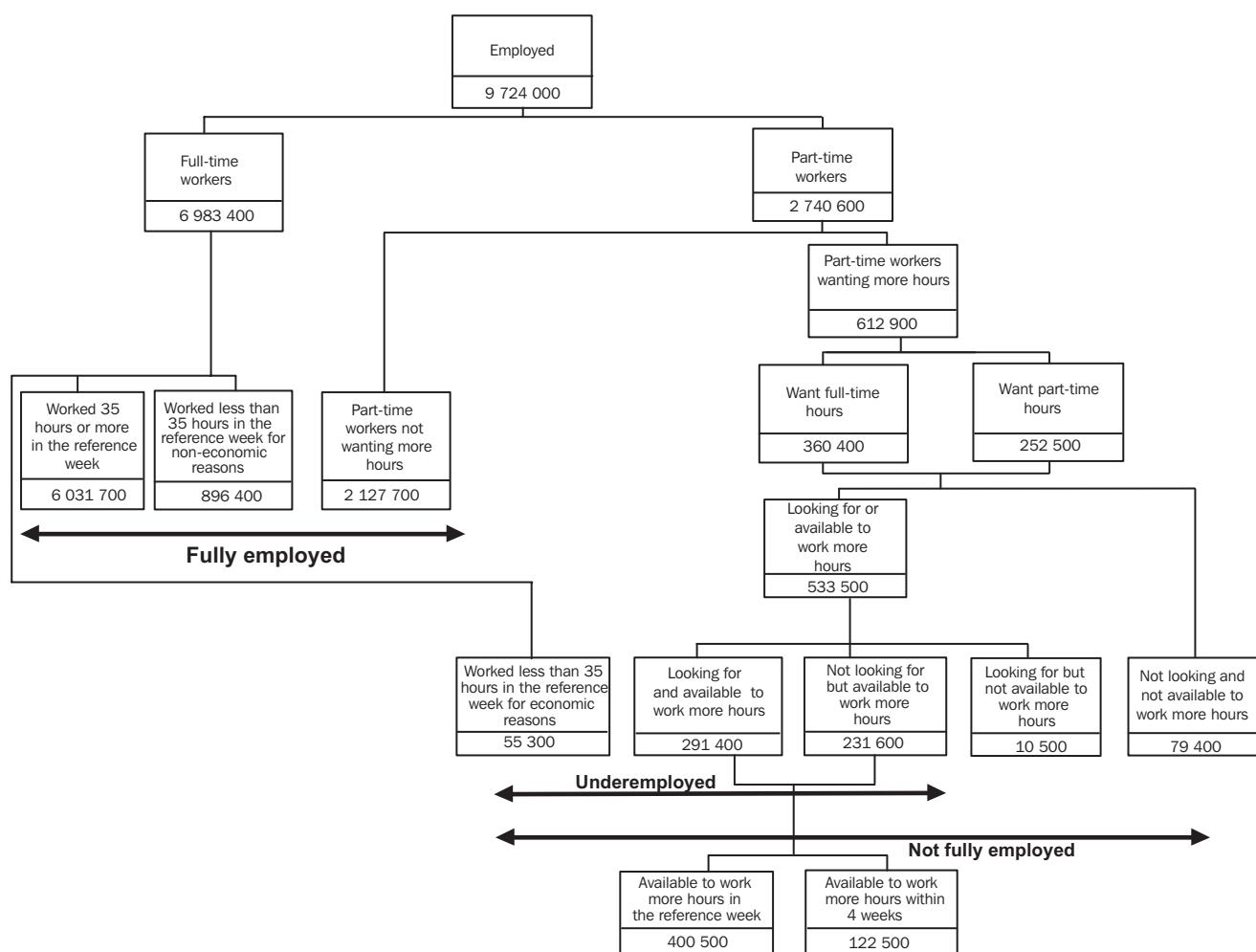
CONCEPTUAL FRAMEWORK

CONCEPTUAL FRAMEWORK

The ABS conceptual framework for underemployment separates employed persons into two mutually exclusive groups:

- workers who are fully employed
- workers who are not fully employed, comprising:
 - part-time workers who want to work more hours
 - full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available).

Fully employed workers comprise: employed persons who worked full time during the reference week (includes persons who usually work part time); employed persons who usually work full time but worked part time in the reference week for non-economic reasons (including illness or injury, leave, holiday or flexitime, and personal reasons); and part-time workers (usually work part time and did so in the reference week) who do not want additional hours of work.



CONCEPTUAL FRAMEWORK *continued*

CONCEPTUAL FRAMEWORK *continued*

The ABS underemployment framework classifies persons who are not fully employed into a number of groups based on whether they are looking for and/or available to start work with more hours. The framework separately identifies part-time workers wanting full-time hours and those wanting more part-time hours. These persons are further classified according to whether they had looked for extra work during the four weeks prior to the survey, and whether they were available to start extra work (either in the reference week or in the four weeks subsequent to the survey).

Persons who usually work full time, but worked part time in the reference week for economic reasons, are separately identified in the underemployment framework. It is assumed that these people wanted to work full time in the reference week and would have been available to do so.

DEFINITION OF UNDEREMPLOYMENT

The ABS definition of the underemployed is consistent with the International Labour Organisation (ILO) definition of time-related underemployment.

According to the ILO definition adopted in 1998, time-related underemployment exists when the hours of work of an employed person are below a threshold, and are insufficient in relation to an alternative employment situation in which the person is willing and available to engage. More specifically, persons in time-related underemployment comprise all employed persons (as defined) who satisfy the following three criteria:

- willingness to work additional hours — the ILO recommends that those who have actively sought to work additional hours should be distinguished from those who have not
- availability to work additional hours, within a specified subsequent period
- worked less than a threshold (determined according to national circumstances) relating to working time — the ABS underemployment framework uses a threshold (35 hours in the reference week) based on the boundary between full-time and part-time work.

UNDEREMPLOYED WORKERS SURVEY

The Underemployed Workers Survey is the primary ABS data source on underemployment. It provides a wide range of information about underemployed workers, including information on the number of hours usually worked, number of preferred hours, steps taken to find work with more hours, and difficulties finding work with more hours. Summary information on underemployed workers is also collected in the Labour Force Survey (LFS) on a quarterly basis.

SUMMARY OF FINDINGS

OVERVIEW

There were 9,724,000 employed persons aged 15 years and over in September 2004. Of these:

- 612,900 (6%) usually worked part time and wanted to work more hours
- 578,300 (6%) were underemployed workers, including:
 - 523,000 who usually worked part time and wanted more hours and were available to start work with more hours in the reference week, or within four weeks of interview
 - 55,300 who usually worked full time but worked part-time hours in the reference week due to economic reasons (being stood down, on short time, or having insufficient work). The majority (83%) of these were male.

PART-TIME WORKERS WHO WANT MORE HOURS

In September 2004, there were 2,740,600 part-time workers. Of these, 22% (612,900) wanted to work more hours, a decrease of one percentage point since September 2003. The proportion of part-time workers wanting more hours was higher for males (29%) than for females (20%). A similar pattern occurred in previous years.

Characteristics of part-time workers who want more hours

Of the 612,900 part-time workers who wanted to work more hours, the majority (59%) wanted to work full time. For males, the proportion who wanted to work full time was 71%, whereas the proportion of females wanting to work full time was 51%.

Duration of insufficient work

The median duration of the current period of insufficient work for part-time workers who wanted to work more hours was 26 weeks. In September 2004, for males aged 45–54 years, the median duration of insufficient work was 52 weeks. See Glossary for definition of *median duration of insufficient work*.

Available to start work with more hours in the reference week

There were 237,600 part-time workers looking for work with more hours who were available to start work with more hours in the reference week. This is the group of underemployed workers which most closely aligns with criteria applied in the ABS definition of unemployment, that is, actively looking for work, and available for work in the reference week. Females comprised 58% of these workers, compared with 55% in September 2003.

Of the 612,900 part-time workers who wanted to work more hours, 76% (464,800) had actively looked for work with more hours in the four weeks prior to the survey, or were available to start work with more hours in the reference week.

The remaining 24% (148,100) were not looking for work with more hours in the four weeks prior to the survey and were not available in the reference week. Of these, 68,700 were available to start work with more hours within the next four weeks.

Looking for, or available to start work

Of those part-time workers wanting more hours, 87% (533,500) were looking for or available to start work with more hours in the reference week or within four weeks. This proportion has remained steady since September 2002. Almost one-third (29%) of these persons usually work 10 hours or less per week.

Extra hours wanted

Of those part-time workers who were looking for or available to start work with more hours:

- 46% wanted to work 10–19 extra hours

SUMMARY OF FINDINGS *continued*

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Extra hours wanted

continued

- 27% wanted to work less than 10 extra hours each week
- 20% wanted to work 20–29 extra hours
- 7% wanted to work an additional 30 hours or more.

The mean preferred number of extra hours each week was 14.9 hours. Males wanted to work an average of 16.2 extra hours compared with an average of 14.1 extra hours for females. The mean preferred number of extra hours was highest for persons aged 25–34 years (15.8 hours) and lowest for persons aged 15–19 years (13.6 hours).

Job search experience

Of those part-time workers who wanted more hours, 301,900 (49%) had been looking for work with more hours.

Part-time workers who looked for work with more hours were asked to report their main difficulty in finding work with more hours. The most commonly reported main difficulty in September 2004 was 'no vacancies in line of work' (18%). A further 10% reported 'lacked necessary skills or education' as their main difficulty, and another 10% reported 'no vacancies at all'.

The most common steps taken to find work with more hours were 'contacted prospective employers' (63%), 'looked in newspapers' (58%) and 'asked current employer for more work' (56%). The proportion of persons searching internet sites to find work with more hours increased from 18% in September 2001 to 32% in September 2004. This is the largest increase in frequency of all the steps taken to find work with more hours.

MOST COMMON STEPS TAKEN TO FIND WORK WITH MORE HOURS, September 2001 to 2004

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	SEPTEMBER 2001		SEPTEMBER 2002		SEPTEMBER 2003		SEPTEMBER 2004	
	'000	%	'000	%	'000	%	'000	%
Contacted prospective employers	202.1	66	196.1	65	194.0	65	189.5	63
Looked in newspapers	182.5	60	172.1	57	172.1	57	174.9	58
Asked current employer for more work	162.1	53	157.8	52	174.1	58	167.9	56
Searched Internet sites	55.5	18	77.6	26	85.1	28	96.1	32
Contacted friends or relations	75.5	25	71.3	24	82.0	27	88.7	29
Registered with Centrelink	80.7	27	70.4	23	69.2	23	69.1	23
Answered a newspaper advertisement for a job	64.8	21	62.6	21	66.8	22	65.5	22

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EMPLOYED PERSONS, Full-time or part-time status—September 2002 to 2004

	SEPTEMBER 2002		SEPTEMBER 2003		SEPTEMBER 2004		
	Males	Females	Males	Females	Males	Females	Persons
	'000	'000	'000	'000	'000	'000	'000
Employed persons	5 198.0	4 169.4	5 313.7	4 256.9	5 360.8	4 363.2	9 724.0
Full-time workers	4 449.4	2 293.0	4 550.0	2 331.4	4 569.0	2 414.4	6 983.4
Worked 35 hours or more in the reference week	3 922.0	1 957.0	3 994.0	1 965.4	3 974.0	2 057.6	6 031.7
Worked less than 35 hours in the reference week	527.4	336.1	556.0	366.0	595.0	356.7	951.7
For non-economic reasons	491.1	324.5	525.7	356.7	549.1	347.3	896.4
For economic reasons	36.3	11.6	30.4	9.2	45.9	9.4	55.3
Part-time workers	748.6	1 876.4	763.7	1 925.4	791.8	1 948.9	2 740.6
Not wanting more hours	522.1	1 513.2	536.7	1 541.8	561.5	1 566.3	2 127.7
Want more hours	226.6	363.2	227.0	383.7	230.3	382.6	612.9
Want more part-time hours	63.5	191.1	62.2	193.5	66.3	186.2	252.5
Want full-time hours	163.0	172.2	164.8	190.2	164.0	196.4	360.4

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UNDEREMPLOYED WORKERS, Underemployment status—September 2002 to 2004

	SEPTEMBER 2002		SEPTEMBER 2003		SEPTEMBER 2004		
	Males	Females	Males	Females	Males	Females	Persons
	'000	'000	'000	'000	'000	'000	'000
Worked less than 35 hours in the reference week for economic reasons	36.3	11.6	30.4	9.2	45.9	9.4	55.3
Part-time workers wanting more hours who were available to start work with more hours(a)							
Looking and available to start	124.9	168.5	117.1	168.8	119.5	171.8	291.4
Not looking but available to start	79.2	153.9	83.1	158.8	78.0	153.6	231.6
Total underemployed	240.3	334.0	230.5	336.8	243.4	334.9	578.3

(a) Availability refers to in the reference week or within four weeks.

PART-TIME WORKERS WHO WANT MORE HOURS, Whether looking and/or available—September 2002 to 2004

	SEPTEMBER 2002		SEPTEMBER 2003		SEPTEMBER 2004		
	Males	Females	Males	Females	Males	Females	Persons
	'000	'000	'000	'000	'000	'000	'000
Had been looking for work with more hours	128.4	172.6	122.8	177.6	122.1	179.7	301.9
Looking and available to start	124.9	168.5	117.1	168.8	119.5	171.8	291.4
Looking and available in the reference week	107.7	135.8	105.4	131.3	100.5	137.1	237.6
Looking and not available in the reference week but within four weeks	17.1	32.7	11.7	37.5	19.0	34.7	53.8
Looking and not available to start	*3.6	*4.1	5.7	8.8	*2.6	7.9	10.5
Had not been looking for work with more hours	98.1	190.6	104.2	206.1	108.2	202.9	311.0
Not looking and available to start	79.2	153.9	83.1	158.8	78.0	153.6	231.6
Not looking and available in the reference week	54.7	98.1	65.0	107.5	58.6	104.3	162.9
Not looking and not available in the reference week but within four weeks	24.5	55.8	18.1	51.3	19.4	49.3	68.7
Not looking and not available to start	19.0	36.7	21.2	47.3	30.2	49.3	79.4
Total	226.6	363.2	227.0	383.7	230.3	382.6	612.9

* estimate has a relative standard error of 25% to 50% and should be used with caution

	LOOKING OR AVAILABLE IN THE REFERENCE WEEK				Not looking and not available in the reference week	
	Looking and available and available '000	Looking and not available '000	Not looking and available '000	Total '000		Total '000
MALES						
Age group (years)						
15–19	20.0	*3.6	16.9	40.6	9.7	50.2
20–24	21.9	4.9	8.2	34.9	11.6	46.5
25–34	22.9	*3.1	9.1	35.1	8.1	43.2
35–44	16.7	*3.9	7.3	28.0	4.7	32.6
45–54	11.1	*4.3	8.7	24.0	6.5	30.5
55 and over	7.9	*1.8	8.4	18.1	9.1	27.2
Relationship in household						
Family member	76.3	15.5	47.0	138.8	38.7	177.5
Husband, wife or partner	33.4	9.1	22.6	65.1	20.0	85.1
Lone parent	*1.6	—	*1.5	*3.0	*0.8	*3.9
Dependent student	10.9	*3.1	9.8	23.9	9.2	33.1
Non-dependent child	25.8	*3.2	12.6	41.5	8.3	49.8
Other family person	*4.6	—	**0.6	5.3	**0.4	5.6
Non-family member	19.3	5.7	7.6	32.5	9.4	41.9
Relationship not determined	5.0	**0.5	*3.9	9.4	*1.5	10.9
Level of highest educational attainment(a)(b)						
Bachelor Degree or above	16.8	*3.0	8.1	27.9	7.6	35.5
Advanced Diploma/Diploma	6.3	*1.0	*3.2	10.5	*2.3	12.8
Certificate	15.7	4.9	7.6	28.2	6.3	34.5
Year 12(c)	28.9	5.6	16.6	51.1	14.1	65.1
Year 11(c)	5.9	*2.7	*3.5	12.2	8.5	20.7
Year 10 or below(c)	26.3	*4.5	18.5	49.3	10.3	59.7
Status in employment						
Employee	88.2	17.8	47.6	153.5	39.1	192.7
Employer	—	—	**0.5	**0.5	**0.5	*1.1
Own account worker	11.4	*3.8	8.8	24.0	9.3	33.3
Contributing family worker	*0.9	—	*1.7	*2.6	**0.7	*3.3
Preferred total number of hours						
Less than 30	15.3	*3.5	16.4	35.2	12.5	47.8
30–34	6.4	*2.0	6.0	14.3	*4.2	18.5
35–39	35.6	6.6	17.8	60.0	16.0	76.0
40 or more	43.3	9.5	18.3	71.1	16.9	88.0
Preferred number of extra hours						
Less than 10	10.1	5.3	19.7	35.1	17.0	52.0
10–19	46.7	10.6	24.1	81.5	20.1	101.5
20–29	33.2	*3.7	11.9	48.8	10.6	59.4
30 or more	10.4	*2.1	*2.9	15.4	*2.0	17.3
Whether would prefer to change employer(d)						
Would prefer to change employer	39.7	7.9	19.3	67.0	15.1	82.1
Would prefer not to change employer	39.7	9.0	30.6	79.2	28.7	107.9
No preference	21.1	4.7	8.7	34.4	5.8	40.3
Whether would prefer to change occupation(e)						
Would prefer to change occupation	47.0	9.9	21.8	78.7	21.2	99.9
Would prefer not to change occupation	32.6	9.2	25.2	67.1	22.2	89.3
No preference	20.8	*2.5	11.6	34.9	6.1	41.1
Total	100.5	21.6	58.6	180.7	49.6	230.3

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) The levels of education are not necessarily in order from highest to lowest. For more information see Appendix 1.

(b) Excludes 'no educational attainment' and 'level not determined'.

(c) Includes persons who are currently undertaking school study.

(d) Whether would prefer to change employer to work more hours.

(e) Whether would prefer to change occupation to work more hours.

	LOOKING OR AVAILABLE IN THE REFERENCE WEEK				Not looking and not available in the reference week	Total
	Looking and available	Looking and not available	Not looking and available	Total		
	'000	'000	'000	'000		
FEMALES						
Age group (years)						
15–19	29.8	4.8	14.8	49.4	11.0	60.4
20–24	23.7	7.4	14.1	45.2	12.3	57.5
25–34	22.6	9.2	18.9	50.6	21.9	72.6
35–44	29.6	9.9	22.8	62.3	23.6	85.9
45–54	26.8	9.2	24.8	60.8	21.7	82.6
55 and over	*4.6	*2.1	8.8	15.6	8.0	23.6
Relationship in household						
Family member	118.2	36.3	90.4	245.0	84.6	329.5
Husband, wife or partner	58.5	17.8	58.3	134.5	51.8	186.4
Lone parent	19.5	7.2	11.4	38.1	12.9	51.0
Dependent student	10.8	*3.9	8.0	22.6	11.4	34.0
Non-dependent child	26.0	7.0	12.4	45.5	6.5	52.0
Other family person	*3.4	**0.4	**0.3	*4.2	*2.0	6.2
Non-family member	15.0	*3.9	8.9	27.8	10.9	38.7
Relationship not determined	*3.9	*2.4	5.0	11.3	*3.1	14.4
Level of highest educational attainment(a)(b)						
Bachelor Degree or above	19.2	6.7	11.8	37.7	9.9	47.6
Advanced Diploma/Diploma	12.3	*4.1	10.1	26.5	11.2	37.7
Certificate	18.4	5.6	13.2	37.2	12.1	49.3
Year 12(c)	35.6	12.1	25.0	72.7	25.0	97.6
Year 11(c)	15.2	*4.1	11.2	30.5	11.6	42.0
Year 10 or below(c)	34.6	9.5	31.6	75.7	28.2	103.8
Status in employment						
Employee	122.3	38.6	95.2	256.1	88.5	344.6
Employer	*1.8	—	**0.3	*2.2	**0.3	*2.5
Own account worker	12.1	*3.4	7.9	23.4	8.0	31.4
Contributing family worker	*0.8	**0.6	*0.9	*2.4	*1.8	*4.2
Preferred total number of hours						
Less than 30	43.5	14.8	40.4	98.7	34.6	133.4
30–34	14.2	6.7	16.1	37.0	15.8	52.9
35–39	51.3	15.8	29.4	96.5	29.3	125.8
40 or more	28.0	5.4	18.3	51.8	18.8	70.6
Preferred number of extra hours						
Less than 10	25.1	16.5	35.3	76.9	43.2	120.1
10–19	65.0	19.5	51.5	136.1	39.7	175.8
20–29	34.1	4.9	13.7	52.7	11.0	63.7
30 or more	12.8	*1.7	*3.9	18.4	4.7	23.0
Whether would prefer to change employer(d)						
Would prefer to change employer	50.0	18.4	29.2	97.6	25.6	123.2
Would prefer not to change employer	58.8	19.1	62.4	140.3	61.7	202.0
No preference	28.3	5.2	12.6	46.1	11.3	57.4
Whether would prefer to change occupation(e)						
Would prefer to change occupation	59.3	19.8	40.9	120.0	33.5	153.5
Would prefer not to change occupation	51.3	19.6	51.0	121.9	57.4	179.2
No preference	26.5	*3.3	12.4	42.2	7.7	49.9
Total	137.1	42.6	104.3	284.0	98.6	382.6

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) The levels of education are not necessarily in order from highest to lowest. For more information see Appendix 1.

(b) Excludes 'no educational attainment' and 'level not determined'.

(c) Includes persons who are currently undertaking school study.

(d) Whether would prefer to change employer to work more hours.

(e) Whether would prefer to change occupation to work more hours.

	LOOKING OR AVAILABLE IN THE REFERENCE WEEK				Not looking and not available in the reference week	
	Looking and available	Looking and not available	Not looking and available	Total	reference week	Total
	'000	'000	'000	'000	'000	'000
PERSONS						
Age group (years)						
15–19	49.8	8.4	31.8	89.9	20.7	110.7
20–24	45.6	12.3	22.3	80.2	23.9	104.0
25–34	45.5	12.3	27.9	85.8	30.0	115.8
35–44	46.3	13.8	30.2	90.3	28.2	118.5
45–54	37.9	13.6	33.4	84.9	28.2	113.1
55 and over	12.5	*3.9	17.3	33.7	17.1	50.8
Relationship in household						
Family member	194.5	51.8	137.4	383.7	123.3	507.0
Husband, wife or partner	91.8	27.0	80.8	199.6	71.9	271.4
Lone parent	21.1	7.2	12.9	41.2	13.7	54.8
Dependent student	21.7	7.0	17.8	46.5	20.6	67.1
Non-dependent child	51.8	10.2	25.0	87.0	14.7	101.8
Other family person	8.1	**0.4	*1.0	9.4	*2.4	11.8
Non-family member	34.3	9.6	16.5	60.3	20.3	80.6
Relationship not determined	8.8	*2.9	9.0	20.7	*4.6	25.3
Level of highest educational attainment(a)(b)						
Bachelor Degree or above	36.0	9.7	19.9	65.5	17.6	83.1
Advanced Diploma/Diploma	18.6	5.0	13.3	37.0	13.5	50.5
Certificate	34.1	10.5	20.8	65.4	18.4	83.8
Year 12(c)	64.5	17.7	41.6	123.7	39.1	162.8
Year 11(c)	21.1	6.7	14.8	42.7	20.1	62.8
Year 10 or below(c)	60.9	14.0	50.1	125.0	38.5	163.5
Status in employment						
Employee	210.4	56.4	142.8	409.6	127.6	537.3
Employer	*1.8	—	*0.9	*2.7	*0.8	*3.5
Own account worker	23.5	7.2	16.7	47.4	17.2	64.7
Contributing family worker	*1.8	**0.6	*2.6	5.0	*2.5	7.4
Preferred total number of hours						
Less than 30	58.8	18.3	56.8	133.9	47.2	181.1
30–34	20.6	8.6	22.1	51.3	20.0	71.4
35–39	86.9	22.4	47.3	156.6	45.3	201.8
40 or more	71.3	14.9	36.7	122.9	35.7	158.6
Preferred number of extra hours						
Less than 10	35.2	21.8	54.9	112.0	60.1	172.1
10–19	111.8	30.2	75.6	217.5	59.8	277.3
20–29	67.4	8.6	25.6	101.5	21.6	123.1
30 or more	23.2	*3.8	6.7	33.7	6.6	40.4
Whether would prefer to change employer(d)						
Would prefer to change employer	89.7	26.4	48.6	164.7	40.7	205.4
Would prefer not to change employer	98.5	28.1	93.0	219.5	90.4	309.9
No preference	49.4	9.9	21.3	80.6	17.1	97.7
Whether would prefer to change occupation(e)						
Would prefer to change occupation	106.3	29.6	62.7	198.7	54.7	253.4
Would prefer not to change occupation	83.9	28.8	76.2	188.9	79.6	268.5
No preference	47.3	5.9	23.9	77.1	13.8	90.9
Total	237.6	64.3	162.9	464.8	148.1	612.9

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** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

— nil or rounded to zero (including null cells)

(a) The levels of education are not necessarily in order from highest to lowest. For more information see Appendix 1.

(b) Excludes 'no educational attainment' and 'level not determined'.

(c) Includes persons who are currently undertaking school study.

(d) Whether would prefer to change employer to work more hours.

(e) Whether would prefer to change occupation to work more hours.

PART-TIME WORKERS WHO WANT MORE HOURS, Duration of current period of insufficient work—By selected characteristics

	DURATION OF CURRENT PERIOD OF INSUFFICIENT WORK (WEEKS)					
	1-12 '000	13-51 '000	52 or more '000	Total '000	Mean duration weeks	Median duration weeks
MALES						
Age group (years)						
15-19	19.6	16.9	13.7	50.2	34.0	21
20-24	15.1	16.5	15.0	46.5	43.3	26
25-34	18.8	13.5	10.9	43.2	36.7	20
35-44	14.0	11.2	7.4	32.6	35.9	17
45-54	6.3	8.0	16.2	30.5	113.9	52
55 and over	5.1	6.5	15.6	27.2	100.5	52
Relationship in household						
Family member	59.4	57.2	60.8	177.5	54.7	26
Husband, wife or partner	27.6	27.3	30.2	85.1	62.4	26
Lone parent	*1.7	*0.8	*1.3	*3.9	*69.3	*26
Dependent student	10.3	11.2	11.6	33.1	39.3	30
Non-dependent child	17.9	16.9	15.0	49.8	49.5	21
Other family person	*1.8	*1.1	*2.8	5.6	*66.6	*50
Non-family member	16.0	11.6	14.4	41.9	58.3	20
Relationship not determined	*3.6	*3.8	*3.6	10.9	*48.6	*34
Level of highest educational attainment(a)(b)						
Bachelor Degree or above	11.3	10.5	13.8	35.5	68.1	30
Advanced Diploma/Diploma	5.5	5.0	*2.3	12.8	38.7	*19
Certificate	12.7	10.1	11.7	34.5	55.1	22
Year 12(c)	24.0	23.3	17.8	65.1	38.1	25
Year 11(c)	5.8	6.7	8.3	20.7	49.6	26
Year 10 or below(c)	19.2	16.8	23.6	59.7	68.0	32
Status in employment						
Employee	66.5	61.6	64.6	192.7	52.8	26
Employer	**0.2	*0.9	—	*1.1	**29.3	**26
Own account worker	11.4	8.8	13.2	33.3	68.9	26
Contributing family worker	*0.9	*1.4	*1.0	*3.3	*59.7	**26
Preferred total number of hours						
Less than 30	14.9	14.8	18.0	47.8	49.4	32
30-34	5.8	5.6	7.1	18.5	73.9	32
35-39	25.8	23.5	26.7	76.0	60.6	26
40 or more	32.4	28.7	27.0	88.0	49.5	20
Preferred number of extra hours						
Less than 10	19.9	14.3	17.8	52.0	49.7	26
10-19	35.0	35.6	31.0	101.5	51.5	26
20-29	17.1	19.1	23.2	59.4	67.3	32
30 or more	7.0	*3.6	6.8	17.3	50.7	24
Whether would prefer to change employer(d)						
Would prefer to change employer	28.9	27.7	25.4	82.1	47.1	26
Would prefer not to change employer	38.0	34.0	35.9	107.9	57.0	26
No preference	11.9	10.9	17.5	40.3	66.3	28
Whether would prefer to change occupation(e)						
Would prefer to change occupation	36.3	31.9	31.7	99.9	50.5	25
Would prefer not to change occupation	32.3	30.4	26.6	89.3	51.2	26
No preference	10.3	10.3	20.4	41.1	74.7	50
Total	78.9	72.6	78.8	230.3	55.1	26

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(b) Excludes 'no educational attainment' and 'level not determined'.

(c) Includes persons who are currently undertaking school study.

(d) Whether would prefer to change employer to work more hours.

(e) Whether would prefer to change occupation to work more hours.

PART-TIME WORKERS WHO WANT MORE HOURS, Duration of current period of insufficient work—By selected characteristics *continued*

	DURATION OF CURRENT PERIOD OF INSUFFICIENT WORK (WEEKS)					
	1-12	13-51	52 or more	Total	Mean duration	Median duration
	'000	'000	'000	'000	weeks	weeks
FEMALES						
<i>Age group (years)</i>						
15-19	22.6	22.7	15.1	60.4	33.5	26
20-24	21.5	20.7	15.3	57.5	48.3	21
25-34	28.9	20.5	23.2	72.6	48.8	26
35-44	24.6	25.5	35.8	85.9	57.0	30
45-54	21.4	21.9	39.2	82.6	98.0	42
55 and over	4.7	*4.2	14.8	23.6	115.0	52
<i>Relationship in household</i>						
Family member	103.8	99.5	126.2	329.5	62.7	32
Husband, wife or partner	58.4	52.3	75.7	186.4	64.4	32
Lone parent	12.8	14.3	23.9	51.0	86.5	40
Dependent student	12.7	11.8	9.5	34.0	37.8	26
Non-dependent child	17.7	19.0	15.3	52.0	51.9	26
Other family person	*2.3	*2.0	*1.9	6.2	*43.1	*22
Non-family member	15.0	10.5	13.1	38.7	58.1	26
Relationship not determined	4.8	5.6	*4.0	14.4	78.5	*26
<i>Level of highest educational attainment(a)(b)</i>						
Bachelor Degree or above	19.4	14.1	14.1	47.6	54.4	25
Advanced Diploma/Diploma	14.1	10.7	12.9	37.7	54.7	26
Certificate	17.8	10.5	21.0	49.3	76.6	28
Year 12(c)	28.1	38.2	31.4	97.6	58.1	28
Year 11(c)	14.0	13.0	15.0	42.0	51.0	26
Year 10 or below(c)	29.4	28.1	46.3	103.8	68.9	37
<i>Status in employment</i>						
Employee	110.6	106.5	127.5	344.6	61.8	30
Employer	*1.5	**0.2	*0.8	*2.5	**24.2	**11
Own account worker	10.0	7.3	14.1	31.4	79.0	36
Contributing family worker	*1.5	*1.6	*1.1	*4.2	*48.7	*17
<i>Preferred total number of hours</i>						
Less than 30	46.2	40.1	47.0	133.4	55.9	26
30-34	13.7	17.7	21.5	52.9	72.8	35
35-39	40.5	34.1	51.2	125.8	67.2	30
40 or more	23.2	23.7	23.6	70.6	60.7	32
<i>Preferred number of extra hours</i>						
Less than 10	37.0	37.8	45.3	120.1	64.2	30
10-19	55.9	55.7	64.2	175.8	61.3	29
20-29	21.7	16.8	25.2	63.7	63.6	32
30 or more	9.1	5.2	8.7	23.0	65.6	30
<i>Whether would prefer to change employer(d)</i>						
Would prefer to change employer	45.6	36.7	41.0	123.2	49.8	26
Would prefer not to change employer	61.5	62.9	77.6	202.0	67.9	30
No preference	16.6	16.0	24.8	57.4	73.0	36
<i>Whether would prefer to change occupation(e)</i>						
Would prefer to change occupation	49.4	48.1	56.0	153.5	56.8	26
Would prefer not to change occupation	57.2	52.1	69.9	179.2	66.7	32
No preference	17.1	15.4	17.4	49.9	67.6	27
<i>Total</i>	123.7	115.6	143.4	382.6	62.9	30

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(c) Includes persons who are currently undertaking school study.

(d) Whether would prefer to change employer to work more hours.

(e) Whether would prefer to change occupation to work more hours.

PART-TIME WORKERS WHO WANT MORE HOURS, Duration of current period of insufficient work—By selected characteristics *continued*

	DURATION OF CURRENT PERIOD OF INSUFFICIENT WORK (WEEKS)					
	1-12	13-51	52 or more	Total	Mean duration	Median duration
	'000	'000	'000	'000	weeks	weeks
PERSONS						
Age group (years)						
15-19	42.3	39.6	28.8	110.7	33.7	26
20-24	36.6	37.2	30.2	104.0	46.0	26
25-34	47.7	34.0	34.0	115.8	44.3	22
35-44	38.6	36.7	43.2	118.5	51.2	26
45-54	27.7	29.9	55.5	113.1	102.3	50
55 and over	9.7	10.7	30.4	50.8	107.3	52
Relationship in household						
Family member	163.2	156.7	187.1	507.0	59.9	27
Husband, wife or partner	86.0	79.6	105.9	271.4	63.8	30
Lone parent	14.5	15.1	25.2	54.8	85.3	40
Dependent student	23.0	23.0	21.0	67.1	38.5	26
Non-dependent child	35.6	35.9	30.3	101.8	50.7	26
Other family person	*4.1	*3.1	*4.6	11.8	*54.3	*26
Non-family member	31.0	22.1	27.5	80.6	58.2	26
Relationship not determined	8.4	9.3	7.6	25.3	65.6	26
Level of highest educational attainment(a)(b)						
Bachelor Degree or above	30.7	24.6	27.8	83.1	60.3	26
Advanced Diploma/Diploma	19.6	15.7	15.2	50.5	50.7	26
Certificate	30.5	20.6	32.7	83.8	67.7	26
Year 12(c)	52.1	61.5	49.2	162.8	50.1	26
Year 11(c)	19.8	19.7	23.3	62.8	50.5	26
Year 10 or below(c)	48.7	44.9	70.0	163.5	68.6	36
Status in employment						
Employee	177.1	168.1	192.1	537.3	58.6	26
Employer	*1.7	*1.1	*0.8	*3.5	*25.7	**26
Own account worker	21.4	16.1	27.2	64.7	73.8	32
Contributing family worker	*2.4	*3.0	*2.1	7.4	*53.6	*26
Preferred total number of hours						
Less than 30	61.2	54.9	65.0	181.1	54.2	26
30-34	19.4	23.3	28.6	71.4	73.1	35
35-39	66.3	57.6	77.9	201.8	64.7	27
40 or more	55.6	52.4	50.6	158.6	54.5	26
Preferred number of extra hours						
Less than 10	56.9	52.1	63.1	172.1	59.8	26
10-19	90.9	91.3	95.2	277.3	57.7	26
20-29	38.7	35.9	48.4	123.1	65.4	32
30 or more	16.1	8.8	15.5	40.4	59.2	26
Whether would prefer to change employer(d)						
Would prefer to change employer	74.5	64.4	66.4	205.4	48.7	26
Would prefer not to change employer	99.5	96.8	113.5	309.9	64.1	26
No preference	28.5	26.9	42.3	97.7	70.2	36
Whether would prefer to change occupation(e)						
Would prefer to change occupation	85.7	80.0	87.7	253.4	54.3	26
Would prefer not to change occupation	89.4	82.5	96.6	268.5	61.6	26
No preference	27.4	25.7	37.9	90.9	70.8	34
Total	202.6	188.2	222.2	612.9	59.9	26

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(b) Excludes 'no educational attainment' and 'level not determined'.

(c) Includes persons who are currently undertaking school study.

(d) Whether would prefer to change employer to work more hours.

(e) Whether would prefer to change occupation to work more hours.

PART-TIME WORKERS LOOKING FOR OR AVAILABLE TO START WORK WITH MORE HOURS(a), Preferred number of extra hours—By selected characteristics

	PREFERRED NUMBER OF EXTRA HOURS					Mean preferred number of extra hours							
	Less than 10 10-19 20-29 30 or '000 '000 '000 more Total												
	'000 '000 '000 '000 '000												
MALES													
Age group (years)													
15-19	17.0	14.4	10.3	*2.9	44.6	14.1							
20-24	8.5	18.6	9.0	*4.1	40.2	16.4							
25-34	5.0	17.9	12.3	*3.5	38.7	17.8							
35-44	*3.6	14.5	8.2	*2.9	29.1	16.9							
45-54	*4.1	13.0	7.6	*1.3	26.0	16.3							
55 and over	*4.6	11.3	5.0	**0.7	21.5	16.5							
Status in employment													
Employee	36.5	78.2	42.6	13.0	170.3	16.0							
Employer	—	—	**0.5	—	**0.5	**23.0							
Own account worker	*4.3	10.7	8.7	*2.4	26.1	18.2							
Contributing family worker	*2.0	**0.7	**0.6	—	*3.3	*10.6							
Usual number of hours worked													
1-5	8.8	*4.1	*1.5	5.8	20.3	17.0							
6-10	6.2	9.5	8.3	6.3	30.2	19.4							
11-15	5.7	5.9	16.4	*1.1	29.1	19.2							
16-20	*2.2	16.9	23.0	*1.1	43.2	18.7							
21-29	6.1	38.1	*2.4	**0.2	46.8	13.6							
30-34	13.8	15.2	**0.7	*0.8	30.5	10.3							
Whether would move interstate if offered a suitable job													
Would move interstate	5.6	22.5	15.9	5.2	49.2	18.0							
Would not move interstate	33.2	53.5	27.8	8.2	122.8	15.3							
Might move interstate	*2.9	10.1	7.2	*1.9	22.1	17.6							
Did not know	*1.0	*3.5	*1.4	—	5.9	15.8							
Whether would move intrastate if offered a suitable job													
Would move intrastate	7.1	27.5	18.0	7.2	59.8	17.9							
Would not move intrastate	29.2	47.3	22.8	7.1	106.5	15.1							
Might move intrastate	5.5	11.8	9.4	*1.1	27.7	16.8							
Did not know	*0.9	*3.0	*2.2	—	6.1	17.1							
Total	42.7	89.6	52.4	15.4	200.2	16.2							

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(a) Availability refers to in the reference week or within four weeks.

PART-TIME WORKERS LOOKING FOR OR AVAILABLE TO START WORK WITH MORE HOURS(a), Preferred number of extra hours—By selected characteristics *continued*

	PREFERRED NUMBER OF EXTRA HOURS					Mean preferred number of extra hours hours	
	Less than 10		10-19	20-29	30 or more		
	'000	'000	'000	'000	'000		
FEMALES							
<i>Age group (years)</i>							
15-19	19.3	23.5	10.5	1.6	54.8	13.3	
20-24	13.6	26.9	8.6	*2.8	51.9	14.2	
25-34	18.5	26.8	8.0	6.9	60.2	14.5	
35-44	20.4	30.9	16.3	5.3	72.9	15.2	
45-54	21.9	39.5	10.0	*2.5	74.0	13.3	
55 and over	6.9	9.5	*2.4	**0.6	19.4	13.0	
<i>Status in employment</i>							
Employee	92.7	146.1	49.4	15.9	304.1	13.8	
Employer	**0.7	*0.8	—	**0.7	*2.2	*16.8	
Own account worker	6.8	8.8	5.9	**2.8	24.3	16.5	
Contributing family worker	**0.4	*1.4	**0.5	**0.4	*2.8	*16.6	
<i>Usual number of hours worked</i>							
1-5	9.5	16.4	5.9	8.0	39.9	17.7	
6-10	14.2	28.3	13.0	11.1	66.7	17.2	
11-15	13.3	19.4	17.4	**0.1	50.2	14.9	
16-20	15.3	32.1	18.4	**0.6	66.4	14.6	
21-29	19.5	51.9	**0.5	—	71.9	11.6	
30-34	28.8	9.0	**0.4	—	38.2	7.5	
<i>Whether would move interstate if offered a suitable job</i>							
Would move interstate	13.5	25.8	9.8	6.9	56.1	16.0	
Would not move interstate	79.2	117.8	39.4	11.7	248.2	13.6	
Might move interstate	6.5	10.2	*4.0	**0.4	21.2	12.9	
Did not know	*1.5	*3.2	*2.5	**0.7	7.9	16.9	
<i>Whether would move intrastate if offered a suitable job</i>							
Would move intrastate	18.8	38.9	14.8	8.6	81.1	15.9	
Would not move intrastate	72.2	102.8	32.9	9.9	217.8	13.4	
Might move intrastate	8.1	12.9	6.3	**0.4	27.7	13.5	
Did not know	*1.6	*2.5	*1.8	*0.9	6.7	16.2	
<i>Total</i>	100.7	157.1	55.8	19.8	333.3	14.1	

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— nil or rounded to zero (including null cells)

(a) Availability refers to in the reference week or within four weeks.

PART-TIME WORKERS LOOKING FOR OR AVAILABLE TO START WORK WITH MORE HOURS(a), Preferred number of extra hours—By selected characteristics *continued*

	PREFERRED NUMBER OF EXTRA HOURS					Mean preferred number of extra hours hours	
	Less than 10		10–19	20–29	30 or more		
	'000	'000	'000	'000	'000		
PERSONS							
Age group (years)							
15–19	36.4	37.9	20.7	*4.4	99.4	13.6	
20–24	22.1	45.5	17.6	6.9	92.1	15.2	
25–34	23.5	44.7	20.3	10.5	98.9	15.8	
35–44	24.0	45.4	24.5	8.2	102.1	15.7	
45–54	26.0	52.5	17.6	*3.9	100.0	14.1	
55 and over	11.4	20.8	7.4	*1.3	40.9	14.8	
Status in employment							
Employee	129.2	224.3	92.0	28.9	474.3	14.6	
Employer	**0.7	*0.8	**0.5	**0.7	*2.7	*18.0	
Own account worker	11.1	19.5	14.6	5.2	50.4	17.4	
Contributing family worker	*2.4	*2.1	*1.1	**0.4	6.1	13.4	
Usual number of hours worked							
1–5	18.4	20.5	7.5	13.8	60.2	17.5	
6–10	20.4	37.8	21.3	17.4	96.9	17.9	
11–15	19.0	25.2	33.9	*1.2	79.3	16.5	
16–20	17.5	49.0	41.5	*1.6	109.6	16.2	
21–29	25.6	90.0	*3.0	**0.2	118.8	12.4	
30–34	42.5	24.2	*1.1	*0.8	68.7	8.7	
Whether would move interstate if offered a suitable job							
Would move interstate	19.1	48.4	25.8	12.1	105.3	16.9	
Would not move interstate	112.4	171.4	67.3	19.9	371.0	14.2	
Might move interstate	9.4	20.3	11.3	*2.3	43.3	15.3	
Did not know	*2.5	6.7	*3.9	**0.7	13.8	16.4	
Whether would move intrastate if offered a suitable job							
Would move intrastate	25.9	66.4	32.8	15.7	140.9	16.8	
Would not move intrastate	101.4	150.1	55.7	17.0	324.3	13.9	
Might move intrastate	13.6	24.7	15.7	*1.5	55.5	15.1	
Did not know	*2.5	5.5	*4.0	*0.9	12.9	16.7	
Total	143.4	246.8	108.2	35.1	533.5	14.9	

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Availability refers to in the reference week or within four weeks.

PART-TIME WORKERS LOOKING FOR OR AVAILABLE TO START WORK WITH MORE HOURS
 (a), Main difficulty in finding work with more hours

	NUMBER			MEAN PREFERRED NUMBER OF EXTRA HOURS		
	Males	Females	Persons	Males	Females	Persons
	'000	'000	'000	hours	hours	hours
Had been looking for work with more hours						
Own ill health or disability	*3.1	*4.5	7.6	*19.8	14.8	16.8
Considered too young by employers(b)	**0.2	*1.8	*1.9	**8.0	*17.1	*16.3
Considered too old by employers(b)	7.2	9.0	16.1	16.0	15.8	15.9
Unsuitable hours	7.9	16.6	24.5	16.1	12.7	13.8
Too far to travel/transport problems	7.4	7.0	14.4	17.9	15.1	16.5
Lacked necessary skills or education	11.9	18.4	30.3	17.8	16.4	17.0
Language difficulties	*3.4	*1.7	5.1	*19.0	*17.2	18.4
Insufficient work experience	8.4	11.1	19.5	19.4	20.4	20.0
No vacancies in line of work	27.2	28.0	55.2	19.4	14.2	16.8
Too many applicants for available jobs	8.4	17.6	26.0	18.6	16.2	16.9
No vacancies at all	10.9	18.1	29.0	18.7	17.4	17.9
Difficulties in finding child care	**0.3	6.2	6.5	**10.0	18.0	17.6
Other family responsibilities	*1.0	4.9	6.0	*15.0	14.8	14.9
Other difficulties	14.5	20.6	35.2	16.2	14.1	14.9
No difficulties reported	10.4	13.8	24.1	15.6	15.3	15.4
Total(c)	122.1	179.7	301.9	17.8	15.6	16.5
Had not been looking for work with more hours	78.0	153.6	231.6	13.7	12.2	12.7
Total	200.2	333.3	533.5	16.2	14.1	14.9

* estimate has a relative standard error of 25% to 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Availability refers to in the reference week or within four weeks.

(b) From July 2004, a change has been made to the category 'considered too young or too old by employers'. See paragraph 20 of the Explanatory Notes for more information.

(c) Includes 'difficulties with ethnic background'.

PART-TIME WORKERS LOOKING FOR OR AVAILABLE TO START WORK WITH MORE HOURS(a), All steps taken to find work with more hours(b)

	PREFERRED NUMBER OF EXTRA HOURS					Mean preferred number of extra hours
	Less than 10		30 or more		Total	
	'000	'000	'000	'000	'000	
MALES						
Asked current employer for more work	9.0	32.3	19.7	7.2	68.1	17.8
Contacted prospective employers	9.0	37.1	24.3	9.0	79.5	18.4
Registered with Centrelink	*2.1	12.4	10.3	4.9	29.6	20.2
Checked Centrelink touchscreens	**0.5	5.7	6.9	*4.6	17.7	23.3
Checked factory noticeboards	**0.2	*2.8	*2.3	**0.7	6.0	20.6
Contacted an employment agency	*1.5	9.7	8.1	*3.7	22.9	20.0
Looked in newspapers	6.0	33.2	23.6	6.5	69.4	18.5
Searched Internet sites	6.0	15.1	12.2	5.4	38.7	18.9
Answered a newspaper advertisement for a job	*3.5	14.0	9.9	*3.7	31.1	19.0
Advertised or tendered for work	**0.6	4.9	7.0	*0.9	13.5	21.0
Contacted friends or relatives	*3.8	18.3	14.3	4.8	41.2	19.2
Other steps taken to find work	*1.9	9.3	5.4	*2.6	19.2	18.3
Had not been looking for work with more hours	27.3	32.3	15.6	*2.9	78.0	13.7
FEMALES						
Asked current employer for more work	19.4	47.8	24.5	8.1	99.7	16.2
Contacted prospective employers	19.2	53.3	26.5	10.9	110.0	16.6
Registered with Centrelink	6.8	16.2	11.6	4.8	39.5	17.7
Checked Centrelink touchscreens	*2.7	6.8	5.9	*2.0	17.4	17.9
Checked factory noticeboards	**0.6	*1.7	*1.6	**0.5	*4.4	18.6
Contacted an employment agency	*4.1	10.1	6.5	*3.9	24.4	18.7
Looked in newspapers	20.6	48.7	27.5	8.8	105.5	16.5
Searched Internet sites	11.2	27.5	11.9	6.9	57.5	16.7
Answered a newspaper advertisement for a job	4.9	14.2	9.0	6.5	34.5	18.5
Advertised or tendered for work	*1.9	*3.7	*2.0	*2.0	9.6	18.0
Contacted friends or relatives	10.0	21.5	9.4	6.7	47.6	16.5
Other steps taken to find work	4.8	14.7	*4.3	*1.0	24.9	14.5
Had not been looking for work with more hours	59.0	72.6	16.7	5.3	153.6	12.2
PERSONS						
Asked current employer for more work	28.3	80.1	44.1	15.3	167.9	16.8
Contacted prospective employers	28.3	90.4	50.9	20.0	189.5	17.3
Registered with Centrelink	8.9	28.6	21.9	9.7	69.1	18.8
Checked Centrelink touchscreens	*3.3	12.5	12.8	6.5	35.1	20.6
Checked factory noticeboards	**0.7	*4.5	*3.8	*1.2	10.3	19.7
Contacted an employment agency	5.6	19.7	14.5	7.5	47.3	19.3
Looked in newspapers	26.6	81.8	51.1	15.4	174.9	17.3
Searched Internet sites	17.2	42.6	24.0	12.3	96.1	17.6
Answered a newspaper advertisement for a job	8.3	28.2	18.9	10.2	65.5	18.8
Advertised or tendered for work	*2.5	8.7	9.1	*2.9	23.2	19.8
Contacted friends or relatives	13.8	39.8	23.7	11.4	88.7	17.7
Other steps taken to find work	6.8	24.0	9.7	*3.6	44.1	16.1
Had not been looking for work with more hours	86.4	104.8	32.3	8.1	231.6	12.7

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Availability refers to in the reference week or within four weeks.

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(b) Refers to all steps taken to find work during the four weeks prior to the survey, therefore persons may appear in more than one category.

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
	'000	'000	'000	'000	'000	'000	'000	'000	'000
MALES									
Population 1 Employed persons	1 790.8	1 339.7	1 049.2	393.7	535.2	117.5	43.8	90.8	5 360.8
Population 2 Full-time workers	1 535.5	1 132.4	898.6	329.7	456.7	99.0	39.5	77.7	4 569.0
Population 3 Part-time workers	255.4	207.3	150.6	64.1	78.5	18.6	4.3	13.0	791.8
Population 4 Part-time workers who want more hours	78.3	60.9	39.6	20.5	21.1	5.5	*0.8	3.5	230.3
Population 5 Part-time workers who want more hours who had been looking for work with more hours or were available to start work with more hours in the reference week or within four weeks	67.3	52.9	34.6	17.8	18.8	4.8	*0.6	3.2	200.2
Population 6 Part-time workers who want more hours who were available to start work with more hours in the reference week or within four weeks	66.9	52.9	34.3	17.0	17.8	4.7	*0.6	3.2	197.5
Population 7 Underemployed workers	81.9	66.6	44.2	19.2	21.7	5.7	*0.8	3.5	243.4
FEMALES									
Population 1 Employed persons	1 441.3	1 094.5	854.5	322.6	430.5	96.7	37.6	85.5	4 363.2
Population 2 Full-time workers	830.3	585.9	482.9	164.0	223.7	47.7	26.8	53.1	2 414.4
Population 3 Part-time workers	611.0	508.6	371.7	158.6	206.8	48.9	10.8	32.4	1 948.9
Population 4 Part-time workers who want more hours	120.7	99.9	75.5	31.3	38.4	10.1	2.2	4.5	382.6
Population 5 Part-time workers who want more hours who had been looking for work with more hours or were available to start work with more hours in the reference week or within four weeks	101.7	88.5	66.6	27.6	33.6	9.3	2.1	3.9	333.3
Population 6 Part-time workers who want more hours who were available to start work with more hours in the reference week or within four weeks	98.8	86.1	66.0	27.1	32.7	8.8	2.1	3.8	325.4
Population 7 Underemployed workers	101.3	88.2	68.0	27.8	34.4	9.1	2.1	4.0	334.9
PERSONS									
Population 1 Employed persons	3 232.2	2 434.3	1 903.8	716.3	965.7	214.2	81.4	176.2	9 724.0
Population 2 Full-time workers	2 365.8	1 718.3	1 381.5	493.7	680.4	146.7	66.2	130.8	6 983.4
Population 3 Part-time workers	866.4	716.0	522.3	222.6	285.3	67.5	15.1	45.4	2 740.6
Population 4 Part-time workers who want more hours	199.0	160.8	115.1	51.8	59.5	15.6	3.0	8.0	612.9
Population 5 Part-time workers who want more hours who had been looking for work with more hours or were available to start work with more hours in the reference week or within four weeks	169.1	141.4	101.2	45.4	52.4	14.1	2.7	7.2	533.5
Population 6 Part-time workers who want more hours who were available to start work with more hours in the reference week or within four weeks	165.7	139.1	100.3	44.1	50.5	13.5	2.7	7.1	523.0
Population 7 Underemployed workers	183.1	154.8	112.1	47.0	56.1	14.8	2.9	7.5	578.3

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) Refers to mainly urban areas only. For more information see paragraph 9 of the Explanatory Notes.

EXPLANATORY NOTES

INTRODUCTION

1 The statistics in this publication were compiled from data collected in the Underemployed Workers Survey conducted throughout Australia in September 2004 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS). Respondents to the monthly LFS who fell within the scope of the supplementary survey were asked further questions.

2 The publication *Labour Force, Australia* (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS, which also apply to supplementary surveys. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing relevant to both the monthly LFS and supplementary surveys.

3 From April 2001 the LFS has been conducted using a redesigned questionnaire containing additional questions and some minor definitional changes. These changes also affect the supplementary surveys. For further details, see *Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire* (cat. no. 6295.0) and *Information Paper: Questionnaires Used in the Labour Force Survey* (cat. no. 6232.0).

CAI IMPLEMENTATION

4 Information for this survey was collected using computer assisted interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire on a notebook computer. The CAI was progressively implemented in the LFS and its supplementary surveys between October 2003 and August 2004.

5 The change of interviewing method is not expected to have affected the estimates in any meaningful way.

CONCEPTS, SOURCES AND METHODS

6 The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in the Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in *Labour Statistics: Concepts, Sources and Methods* (cat. no. 6102.0.55.001) which is available on the ABS web site <<http://www.abs.gov.au>> (Methods, Classifications, Concepts & Standards).

SCOPE

7 The scope of the LFS is restricted to persons aged 15 years and over and excludes the following persons:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments, customarily excluded from the census and estimated populations
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants).

8 Students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for persons with disabilities), and inmates of prisons are excluded from all supplementary surveys.

9 This supplementary survey was conducted in both urban and rural areas in all states and territories, but excluded approximately 120,000 persons living in very remote parts of Australia who would otherwise have been within the scope of the survey. The exclusion of these persons will have only a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where such persons account for over 20% of the population.

COVERAGE

10 The estimates in this publication relate to persons covered by the survey in September 2004. In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See *Labour Force, Australia* (cat. no. 6202.0) for more details.

EXPLANATORY NOTES *continued*

SAMPLE SIZE

11 The initial sample for the September LFS consisted of 40,639 private dwelling households and special dwelling units. Of the 33,033 private dwelling households and special dwelling units that remained in the survey after sample loss (e.g. households selected in the survey which had no residents in scope for the LFS, vacant or derelict dwellings and dwellings under construction), approximately 30,918 or 93.6% were fully responding to the Underemployed Workers survey. The number of completed interviews obtained from these private dwelling households and special dwelling units (after taking into account scope, coverage and subsampling exclusions) was 32,050.

RELIABILITY OF THE ESTIMATES

12 Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information see the Technical Note.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and efficient processing procedures.

SEASONAL FACTORS

13 The estimates are based on information collected in the survey month and, due to seasonal factors, may not be representative of other months of the year.

CLASSIFICATIONS USED

14 Country of birth data are classified according to the *Standard Australian Classification of Countries (SACC), 1998* (cat. no. 1269.0).

15 Educational attainment data are classified according to *Australian Standard Classification of Education (ASCED)* (cat. no. 1272.0). See Appendix 1 for more information.

COMPARABILITY OF TIME SERIES

16 Revisions are made to population benchmarks for the LFS after each five-yearly Census of Population and Housing. The last such revision was made in February 2004 to take account of the results of the 2001 Census of Population and Housing. Estimates from supplementary surveys conducted from and including February 2004 are based on the revised population benchmarks.

17 Supplementary surveys are not always conducted on the full LFS sample. Since August 1994 the sample for supplementary surveys has been restricted to no more than seven-eighths of the LFS sample. Therefore the reduction in sample size means that the standard errors for this survey differ from those applicable to surveys conducted prior to August 1994.

18 Prior to September 1994, part-time workers who wanted more hours of work were asked whether they were available to start work with more hours within the subsequent four weeks. From September 1994, an additional question was added to also determine their availability to start work with more hours during the reference week. This question was added to the survey so that estimates of underemployment could be more easily aligned with the then current International Labour Organisation (ILO) recommendations on underemployment.

19 As part of the redesign in 2001 of the LFS questionnaire, persons who were on short-term unpaid leave initiated by the employer, are now classified as employed. This approach is consistent with ILO recommendations on formal job attachment. Analysis of data from the LFS shows that many of these persons usually worked part time, and that a number of these had a preference to work more hours. However, overall, these persons contribute only marginally to the change in part-time workers wanting more hours.

EXPLANATORY NOTES *continued*

COMPARABILITY OF TIME SERIES *continued*

20 From July 2004, a change has been made to the category 'considered too young or too old by employers' for the items 'all difficulties in finding work with more hours' and 'main difficulty in finding work with more hours'. The category has been split into 'considered too young by employers' and 'considered too old by employers'.

COMPARABILITY WITH MONTHLY LFS STATISTICS

21 Due to differences in the scope and sample size of this supplementary survey and that of the monthly LFS, the estimation procedure may lead to some small variations between labour force estimates from this survey and those from the monthly LFS.

COMPARABILITY WITH ILO DEFINITIONS

22 Comparability of the concepts and definitions used in the Underemployed Workers Survey are discussed in the Conceptual Framework on page 3. More detailed discussion is included in *Labour Statistics: Concepts Sources and Methods, 2001* (cat. no. 6102.0.55.001), Chapter 5.

PREVIOUS SURVEYS

23 The Underemployed Workers Survey was conducted in May 1985, 1988 and 1991. In 1994, the survey became an annual survey, collected each September. Results of previous surveys were published in: *Underemployed Workers, Australia* (cat. no. 6265.0); and the standard data service *Underemployed Workers, Australia* (cat. no. 6265.0.40.001) for 1994 and 1995.

NEXT SURVEY

24 The ABS plans to conduct this survey again in September 2005.

ACKNOWLEDGMENT

25 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

RELATED PUBLICATIONS

26 ABS publications which may be of interest include:

Job Search Experience, Australia, cat. no. 6222.0

Labour Force, Australia, cat. no. 6202.0

Labour Force Experience, Australia, cat. no. 6206.0

Labour Mobility, Australia, cat. no. 6209.0

Labour Statistics: Concepts, Sources and Methods, cat. no. 6102.0.55.001

Persons Not in the Labour Force, Australia, cat. no. 6220.0

Working Arrangements, Australia, cat. no. 6342.0

Australian Labour Market Statistics, cat. no. 6105.0

27 Current publications and other products released by the ABS are listed in the *Catalogue of Publications and Products* (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

APPENDIX 1 CLASSIFICATION OF EDUCATION

CLASSIFICATION OF EDUCATION

In 2001, the *ABS Classification of Qualifications (ABSCQ)* (cat. no. 1262.0) was replaced by the *Australian Standard Classification of Education (ASCED)* (cat. no. 1272.0). The ASCED is a national standard classification which can be applied to all sectors of the Australian education system including schools, vocational education and training and higher education. ASCED replaces a number of classifications previously used in administrative and statistical systems, including the ABSCQ. The ASCED comprises two classifications: Level of Education and Field of Education.

Level of Highest Educational Attainment can be derived from information on Highest Year of School Completed and Level of Highest Non-school Qualification. The derivation process determines which of the 'non-school' or 'school' attainments will be regarded as the highest. Usually the higher ranking attainment will be self-evident, but in some cases some Secondary Education is regarded, for the purposes of obtaining a single measure, as higher than some Certificate level attainments.

The following decision table is used to determine which of the responses to questions on Highest Year of School Completed (coded to ASCED Broad Level 6) and Level of Highest Non-school Qualification (coded to ASCED Broad Level 5) will be regarded as the highest. It is emphasised that this table was designed for the purpose of obtaining a single value for the output variable Level of Highest Educational Attainment and is not intended to convey any other ordinality.

Decision Table: Level of Highest Educational Attainment							
ASCED LEVEL OF EDUCATION CODES	Certificate n.f.d. (500)	Certificate III or IV n.f.d. (510)	Certificate IV (511)	Certificate III (514)	Certificate I or II n.f.d. (520)	Certificate II (521)	Certificate I (524)
Secondary Education n.f.d. (600)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Senior Secondary Education n.f.d. (610)	Senior Secondary n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Senior Secondary n.f.d.	Senior Secondary n.f.d.	Senior Secondary n.f.d.
Year 12 (611)	Year 12	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 12	Year 12	Year 12
Year 11 (613)	Year 11	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 11	Year 11	Year 11
Junior Secondary Education n.f.d. (620)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 10 (621)	Year 10	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Year 10	Certificate II	Year 10
Year 9 (622)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 8 (623)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I
Year 7 (624)	Certificate n.f.d.	Certificate III or IV n.f.d.	Certificate IV	Certificate III	Certificate I or II n.f.d.	Certificate II	Certificate I

APPENDIX 1 CLASSIFICATION OF EDUCATION *continued*

CLASSIFICATION OF EDUCATION *continued*

The decision table is also used to rank the information provided in a survey about the qualifications and attainments of a single individual. It does not represent any basis for comparison between differing qualifications. For example, a person whose Highest Year of School Completed was Year 12, and whose Level of Highest Non-school Qualification was a Certificate III, would have those responses crosschecked on the decision table and would as a result have their Level of Highest Educational Attainment output as Certificate III. However, if the same person answered 'Certificate' to the highest non-school qualification question, without offering any further detail, it would be crosschecked against Year 12 on the decision table as 'Certificate not further defined'. The output would then be 'Year 12'. The decision table, therefore, does not necessarily imply that one qualification is 'higher' than the other.

APPENDIX 2 POPULATIONS AND DATA ITEMS LIST

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DATA AVAILABLE ON REQUEST

The ABS has a range of data available on request from the Underemployed Workers Survey. This section lists the data items and populations which relate to the survey. More detailed breakdowns of some data items may also be available on request.

The population(s) for a particular data item refers to the person in the survey to whom the data item relates. Where alternative output categories are available for the same data item, these are shown and the data item name is followed by a bracketed numeral (e.g. Country of birth (2)).

For more information about ABS data available on request, contact Sue Taylor on Canberra (02) 6252 5603, or by facsimile on (02) 6252 7512, or by email to <sue.taylor@abs.gov.au>.

Population 1: Employed persons.

Population 2: Full-time workers.

Population 3: Part-time workers.

Population 4: Part-time workers who want more hours.

Population 5: Part-time workers who want more hours who had been looking for work with more hours or were available to start work with more hours in the reference week or within four weeks.

Population 6: Part-time workers who want more hours who were available to start work with more hours in the reference week or within four weeks.

Population 7: Underemployed workers

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<i>Data items</i>	<i>Populations</i>	<i>Data items</i>	<i>Populations</i>
1 State or territory of usual residence	All	6 Relationship in household	All
New South Wales		Family member	
Victoria		Husband, wife or partner	
Queensland		With dependants	
South Australia		Without dependants	
Western Australia		Lone parent	
Tasmania		With dependants	
Northern Territory		Without dependants	
Australian Capital Territory		Dependent student	
		Non-dependent child	
		Other family person	
2 Area of usual residence	All	Non-family member	
Capital city		Lone person	
Balance of state/territory		Not living alone	
3 Region of usual residence	All	Relationship not determined	
Standard labour force dissemination regions			
4 Sex	All	7A Country of birth and period of arrival	All
Males		Born in Australia	
Females		Born overseas	
5 Marital status	All	Arrived before 1971	
Married		Arrived 1971–1980	
Not married		Arrived 1981–1990	
		Arrived 1991–2000	
		Arrived 2001 to survey date	

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APPENDIX 2 POPULATIONS AND DATA ITEMS LIST *continued*

<i>Data items</i>	<i>Populations</i>	<i>Data items</i>	<i>Populations</i>
7B Country of birth (1)	All	10A Full-time or part-time status (2) <i>cont.</i>	All
Born in Australia		Employed persons <i>cont.</i>	
Born overseas		Part-time workers	
Born in main English-speaking countries		Not wanting more hours	
Born in other than main English-speaking countries		Want more hours	
7C Country of birth (2)	All	Want more part-time hours	
Born in Australia		Want full-time hours	
Born overseas			
Oceania and Antarctica		11 Whether fully employed	All
North-West Europe		Fully employed	
Southern and Eastern Europe		Part-time workers who want more hours and persons who worked less than 35 hours in the reference week for economic reasons	
North Africa and the Middle East			
South-East Asia			
North-East Asia		12 Status in employment	All
Southern and Central Asia		Employee	
Americas		Employer	
Sub-Saharan Africa		Own account worker	
8 Age group (years)	All	Contributing family worker	
15–19			
20–24		13 Number of hours worked in the reference period	4–7
25–34		0–5	
35–44		6–10	
45–54		11–15	
55–59		16–20	
60–64		21–29	
65 and over		30–34	
Note: Age collected in single years		35 or more	
9 Underemployment status	7		
Worked less than 35 hours in reference week for economic reasons		14 Type of insufficient work	4–6
Part-time workers wanting more hours who were available to start work with more hours in the reference week or within four weeks		Full-time	
Looking and available to start		Part-time	
Not looking but available to start			
10 Full-time or part-time status (1)	All	15 Duration of current period of insufficient work	4–7
Full-time workers		1–3 weeks	
Part-time workers		4–12 weeks	
		13–51 weeks	
		52 weeks or more	
10A Full-time or part-time status (2)	All	16 Level of highest educational attainment	4–7
Employed persons		Postgraduate Degree	
Full-time workers		Graduate Diploma/Graduate Certificate	
Worked 35 hours or more in the reference week		Bachelor Degree	
Worked less than 35 hours in the reference week		Advanced Diploma/Diploma Certificate III/IV	
For non-economic reasons		Certificate I/II	
For economic reasons		Certificate not further defined	
		Year 12	
		Year 11	
		Year 10 or below	
		Level not determined	
		No educational attainment	

APPENDIX 2 POPULATIONS AND DATA ITEMS LIST *continued*

APPENDIX 2 POPULATIONS AND DATA ITEMS LIST *continued*

<i>Data items</i>	<i>Populations</i>	<i>Data items</i>	<i>Populations</i>
25 Main difficulty in finding work with more hours	4–6	25 Main difficulty in finding work with more hours <i>cont.</i>	4–6
Had been looking for work with more hours		Had been looking for work with more hours <i>cont.</i>	
Own ill health or disability		Other family responsibilities	
Considered too young by employers		Other difficulties	
Considered too old by employers		No difficulties reported	
Unsuitable hours		Had not been looking for work with more hours	
Too far to travel/transport problems			
Lacked necessary skills or education	1–5		
Language difficulties	6–10		
Insufficient work experience	11–15		
No vacancies in line of work	16–20		
Too many applicants for available jobs	21–29		
No vacancies at all	30–34		
Difficulties with ethnic background		26 Usual number of hours worked	4–6
Difficulties in finding child care		Less than 30	
		30–34	
		35–39	
		40 or more	
		27 Preferred total number of hours	4–6

APPENDIX 3 SUPPLEMENTARY SURVEYS

SUPPLEMENTARY SURVEYS

The Monthly Population Survey program collects data on particular aspects of the labour force. The following is an historical list of supplementary surveys to the monthly labour force surveys. Data from these surveys are available on request and can be obtained by contacting the ABS.

	cat. no.	Frequency	Latest issue
Career Experience, Australia	6254.0	Irregular	November 2002
Career Paths of Persons with Trade Qualifications, Australia	6243.0	Discontinued	Final issue 1993
Child Care, Australia	4402.0	Irregular	June 2002
Education and Work, Australia	6227.0	Annual	May 2004
Employee Earnings, Benefits, and Trade Union Membership, Australia	6310.0	Annual	August 2003
Forms of Employment, Australia	6359.0	Irregular	November 2001
Job Search Experience, Australia	6222.0	Annual	July 2004
Labour Force Experience, Australia	6206.0	Biennial	February 2003
Labour Force Status and Educational Attainment, Australia	6235.0	Discontinued	Final issue 1994
Labour Force Status and Other Characteristics of Families, Australia(a)	6224.0	Discontinued	Final issue 2000
Labour Force Status and Other Characteristics of Migrants, Australia	6250.0	Irregular	November 1999
Labour Mobility, Australia	6209.0	Biennial	February 2004
Locations of Work, Australia	6275.0	Irregular	June 2000
Multiple Jobholding, Australia(b)	6216.0	Irregular	August 1997
Participation in Education, Australia	6272.0	Discontinued	Final issue 1999
Persons Not in the Labour Force, Australia	6220.0	Annual	September 2004
Persons Who had Re-entered the Labour Force, Australia	6264.0.40.001	Discontinued	Final issue 1995
Persons Who Have Left the Labour Force, Australia	6267.0.40.001	Discontinued	Final issue 1994
Retirement and Retirement Intentions, Australia	6238.0	Irregular	November 1997
Retrenchment and Redundancy, Australia	6266.0	Irregular	July 2001
Successful and Unsuccessful Job Search Experience, Australia	6245.0	Discontinued	Final issue 2000
Superannuation, Australia	6319.0	Discontinued	Final issue 1995
Underemployed Workers, Australia	6265.0	Annual	September 2003
Working Arrangements, Australia	6342.0	Irregular	November 2003
Work-Related Injuries, Australia	6324.0	Irregular	September 2000

(a) Latest data available June 2003, from the ABS web site cat. no. 6291.0.55.001 annual, or on request.
 (b) Latest data available on request July 2001.

TECHNICAL NOTE DATA QUALITY

INTRODUCTION

1 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

2 Due to space limitations, it is impractical to print the SE of each estimate in the publication. Instead, a table of SEs is provided to enable readers to determine the SE for an estimate from the size of that estimate (see table T1). The SE table is derived from a mathematical model, referred to as the 'SE model', which is created using data from a number of past Labour Force Surveys. It should be noted that the SE model only gives an approximate value for the SE for any particular estimate, since there is some minor variation between SEs for different estimates of the same size.

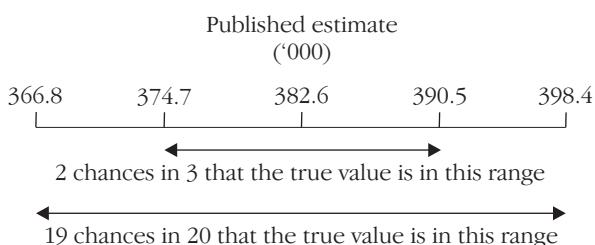
CALCULATION OF STANDARD ERROR

3 An example of the calculation and the use of SEs in relation to estimates of persons is as follows. Table 5 shows the estimated number of female part-time workers who want more hours was 382,600. Since this estimate is between 300,000 and 500,000, table T1 shows that the SE for Australia will lie between 7,250 and 8,800 and can be approximated by interpolation using the following general formula:

SE of estimate

$$\begin{aligned} &= \text{lower SE} + \left(\left(\frac{\text{size of estimate} - \text{lower estimate}}{\text{upper estimate} - \text{lower estimate}} \right) \times (\text{upper SE} - \text{lower SE}) \right) \\ &= 7,250 + \left(\left(\frac{382,600 - 300,000}{500,000 - 300,000} \right) \times (8,800 - 7,250) \right) \\ &= 7,900 \text{ (rounded to the nearest 100)} \end{aligned}$$

4 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 374,700 to 390,500 and about 19 chances in 20 that the value will fall within the range 366,800 to 398,400. This example is illustrated in the following diagram.



5 In general, the size of the SE increases as the size of the estimate increases. Conversely, the RSE decreases as the size of the estimate increases. Very small estimates are thus subject to such high RSEs that their value for most practical purposes is unreliable. In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% but less than or equal to 50% are preceded by an asterisk (e.g.*3.2) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of greater than 50%, preceded by a double asterisk (e.g.**0.3), are considered too unreliable for general use

TECHNICAL NOTE DATA QUALITY *continued*

CALCULATION OF STANDARD ERROR *continued*

MEANS AND MEDIANS

and should only be used to aggregate with other estimates to provide derived estimates with RSEs of less than 25%.

6 The RSEs of estimates of mean duration of insufficient work, median duration of insufficient work and mean preferred number of extra hours are obtained by first finding the RSE of the estimate of the total number of persons contributing to the mean or median (see table T1) and then multiplying the resulting number by the following factors:

- mean duration of insufficient work: 1.7
- median duration of insufficient work: 2.1
- mean preferred number of extra hours: 0.8.

7 The following is an example of the calculation of SEs where the use of a factor is required. Table 5 shows that the estimated number of male part-time workers who want more hours was 230,300 with a median duration of insufficient work of 26 weeks. The SE of 230,300 can be calculated from table T1 (by interpolation) as 6,600. To convert this to a RSE we express the SE as a percentage of the estimate or $6,600/230,300 = 2.9\%$.

8 The RSE of the estimate of median duration of insufficient work is calculated by multiplying this number (2.9%) by the appropriate factor shown in paragraph 6 (in this case 2.1): $2.9 \times 2.1 = 6.1\%$. The SE of this estimate of median duration of insufficient work is therefore 6.1% of 26, i.e. about 2 (rounded to the nearest whole week). Therefore, there are two chances in three that the median duration of insufficient work for males that would have been obtained if all dwellings had been included in the survey would have been within the range 24–28 weeks, and about 19 chances in 20 that it would have been within the range 22–30 weeks.

PROPORTIONS AND PERCENTAGES

9 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

10 Considering the example from paragraph 3, of the 382,600 females who usually work part time and want more hours, 143,400 or 37.5% had insufficient work for 52 weeks or more. The SE of 143,400 may be calculated by interpolation as 5,500. To convert this to an RSE we express the SE as a percentage of the estimate, or $5,500/143,400 = 3.8\%$. The SE for 382,600 was calculated previously as 7,900, which converted to an RSE is $7,900/382,600 = 2.1\%$. Applying the above formula, the RSE of the proportion is:

$$RSE = \sqrt{(3.8)^2 - (2.1)^2} = 3.2\%$$

11 Therefore, the SE for the proportion of females who have a current period of insufficient work of 52 weeks or more is 1.2 percentage points ($= (37.5/100) \times 3.2\%$). Therefore, there are about two chances in three that the proportion of females who have a current period of insufficient work of 52 weeks or more was between 36.3% and 38.7% and 19 chances in 20 that the proportion is within the range 35.1% to 39.9%.

DIFFERENCES

12 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates ($x-y$) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

TECHNICAL NOTE DATA QUALITY *continued*

.....

DIFFERENCES *continued*

13 While this formula will only be exact for differences between separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.

T1 STANDARD ERRORS OF ESTIMATES

.....

Size of estimates (persons)	AUST.									
	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	SE	RSE
no.	no.	no.	no.	no.	no.	no.	no.	no.	no.	%
100	90	100	180	160	160	110	110	130	80	80.0
200	160	170	260	220	220	140	150	160	140	70.0
300	220	230	310	260	260	170	180	180	190	63.3
500	330	320	390	320	340	210	220	220	270	54.0
700	420	400	460	370	390	240	250	240	350	50.0
1,000	530	500	540	420	460	280	290	270	440	44.0
1,500	690	630	650	500	550	330	340	310	580	38.7
2,000	820	750	740	570	620	370	380	350	700	35.0
2,500	950	850	800	600	700	400	400	400	800	32.0
3,000	1 050	950	900	650	750	450	450	400	900	30.0
3,500	1 150	1 000	950	700	800	450	450	450	1 000	28.6
4,000	1 250	1 100	1 000	750	850	500	500	450	1 050	26.3
5,000	1 400	1 200	1 100	850	900	550	550	500	1 200	24.0
7,000	1 650	1 400	1 300	950	1 050	600	600	550	1 450	20.7
10,000	1 950	1 700	1 500	1 100	1 200	700	700	650	1 750	17.5
15,000	2 350	2 000	1 800	1 300	1 450	800	800	750	2 150	14.3
20,000	2 700	2 250	2 050	1 450	1 600	900	900	850	2 450	12.3
30,000	3 150	2 650	2 450	1 700	1 850	1 050	1 050	1 000	2 950	9.8
40,000	3 500	2 900	2 750	1 900	2 100	1 200	1 150	1 100	3 350	8.4
50,000	3 800	3 150	3 000	2 100	2 250	1 300	1 250	1 250	3 700	7.4
100,000	4 750	4 000	4 000	2 750	2 900	1 700	1 600	1 650	4 850	4.9
150,000	5 350	4 600	4 750	3 250	3 350	1 950	1 850	2 000	5 600	3.7
200,000	5 900	5 150	5 300	3 650	3 750	2 150	2 050	2 300	6 250	3.1
300,000	6 900	6 100	6 250	4 300	4 300	2 500	..	2 750	7 250	2.4
500,000	8 550	7 700	7 650	5 250	5 050	3 050	..	..	8 800	1.8
1,000,000	11 950	10 800	10 050	6 850	6 350	..	..	..	11 550	1.2
2,000,000	17 600	15 650	13 100	9 000	7 800	..	..	..	15 250	0.8
5,000,000	31 550	26 900	18 450	..	..	..	..	..	23 400	0.5
10,000,000	..	..	..	..	..	..	..	..	40 950	0.4

.....

.. not applicable

TECHNICAL NOTE DATA QUALITY *continued*

.....

T2 LEVELS AT WHICH ESTIMATES HAVE RELATIVE STANDARD ERRORS OF 25% AND 50%(a)

.....

	NSW no.	Vic. no.	Qld no.	SA no.	WA no.	Tas. no.	NT no.	ACT no.	Aust. no.
RSE OF 25%									
Mean duration of current period of insufficient work	11 800	10 800	8 300	4 600	5 600	2 000	1 300	2 100	12 000
Median duration of current period of insufficient work	18 900	14 300	12 200	6 700	8 000	3 200	2 800	2 900	16 300
Mean preferred number of extra hours	5 300	4 400	4 200	2 300	2 700	900	800	1 100	4 100
All other estimates	6 200	4 700	4 100	2 500	2 900	1 200	1 000	1 100	4 600
RSE OF 50%									
Mean duration of current period of insufficient work	2 800	2 800	2 400	1 400	1 700	600	400	700	2 500
Median duration of current period of insufficient work	5 000	3 900	3 500	2 100	2 400	1 000	900	1 000	3 700
Mean preferred number of extra hours	900	900	1 200	700	800	300	300	400	600
All other estimates	1 200	1 000	1 200	800	900	400	300	400	700

.....

(a) Refers to the number of persons contributing to the estimate.

GLOSSARY

Centrelink	Centrelink is a statutory authority responsible for delivering a range of Commonwealth government services, including registering of persons for job search assistance and income support.
Duration of insufficient work	The duration of insufficient work is the length of time underemployed workers have been working less than 35 hours a week. As periods of insufficient work are recorded in full weeks and rounded down, this results in a slight understatement of duration.
Employed	Persons aged 15 years and over who, during the reference week: <ul style="list-style-type: none">■ worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers); or■ worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or■ were employees who had a job but were not at work and were:<ul style="list-style-type: none">■ away from work for less than four weeks up to the end of the reference week; or■ away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four-week period to the end of the reference week; or■ away from work as a standard work or shift arrangement; or■ on strike or locked out; or■ on workers' compensation and expected to return to their job; or■ were employers or own account workers who had a job, business or farm, but were not at work.
Full-time workers	Employed persons who usually worked 35 hours or more a week (in all jobs) or others who, although usually worked less than 35 hours a week, worked 35 hours or more during the reference week.
Fully employed workers	Employed persons who: <ul style="list-style-type: none">■ worked full time during the reference week (including persons who usually work part time but worked full time in the reference week); or■ usually work full time but worked less than 35 hours in the reference week for non-economic reasons (such as illness or injury, leave holiday or flexitime, or personal reasons); or■ part-time workers who do not want to work additional hours.
Labour force	The civilian population aged 15 years and over can be split into two mutually exclusive groups: the labour force (employed and unemployed persons) and persons not in the labour force.
Level of highest educational attainment	Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is defined as the highest educational attainment a person has achieved, and is not a measurement of relative importance of different fields of study.
Looking for work with more hours	Looked for work with more hours at some time during the four weeks up to the end of the reference week.
Main English-speaking countries	The main English-speaking countries are the United Kingdom, Ireland, Canada, South Africa, the United States of America and New Zealand.
Mean duration of insufficient work	The mean duration of insufficient work is obtained by dividing the aggregate number of weeks a group has had insufficient work by the number of persons in that group.
Mean preferred number of extra hours	The mean preferred number of extra hours is obtained by dividing the total preferred number of extra hours reported by a group by the number of persons in that group.
Median duration of insufficient work	The median duration of insufficient work is obtained by dividing underemployed workers into two equal groups, one comprising persons whose duration of insufficient work is above the median, and the other comprising persons whose duration is below it.

GLOSSARY *continued*

Part-time workers	Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work during the reference week.
Preferred number of extra hours	The number of extra hours a week an underemployed worker would have preferred to work.
Reference week	The week preceding the week in which the interview was conducted.
Status in employment	Employed persons classified by whether they were employees, employers, own account workers, or contributing family workers.
Underemployed workers	Underemployed workers are employed persons who want, and are available for, more hours of work than they currently have. They comprise: <ul style="list-style-type: none">■ part-time workers who want to work more hours and were available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey■ full-time workers who worked part-time hours in the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed that these people wanted to work full time in the reference week and would have been available to do so.
Usual number of hours	The number of hours usually worked in a week.

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